

Commissioner for Patents
Washington, DC 20231



INFORMATION DISCLOSURE STATEMENT

This Information Disclosure Statement accompanies the new patent application submitted herewith of the following Inventors: Kathleen H. YOUNG and Kenneth J. RHODES;

For: **METHODS FOR IDENTIFYING MODULATORS OF N-TYPE ION CHANNEL INACTIVATION.**

1. Preliminary Statements

In accordance with 37 CFR 1.97 and 1.98, Applicants submit herewith patents, publications, or other information of which they are aware in accordance with 37 CFR 1.56.

This Information Disclosure Statement is not to be construed as a representation that: (i) a search has been made; (ii) the information is material to the examination of this application; (iii) additional information material to the examination of this application does not exist; (iv) the information, protocols, results and the like reported by third parties are accurate or enabling; or (v) the information constitutes prior art to the subject invention.

2. ☒ Previously Cited Information

No copy of the patents, publications or other information cited on the attached form PTO-1449 is enclosed because it has been previously cited by or submitted to the Office in a prior application which is relied upon for an earlier filing date under 35 USC 120. Prior application is Serial Number 09/295,999 filed on April 21, 1999 of Kathleen H. YOUNG and Kenneth J. RHODES for METHODS FOR IDENTIFYING MODULATORS OF N-TYPE ION CHANNEL INACTIVATION.

CERTIFICATE OF MAILING 37 CFR §1.10

I hereby certify that this paper and the documents referred to as enclosed therein are being deposited with the United States Postal Service on the date written below in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EL564795713US addressed to the Commissioner for Patents, Washington, DC 20231.


Date

1/17/02

Julia Richie

Julia Richie

3. ☐ Newly Cited Information
A legible copy of the patents, publications or other information cited on the attached form PTO-1449 is enclosed, except that no copy of a pending U.S. application is enclosed.
4. ☐ Concise Explanation
Documents cited above which are not in the English Language
- a. ☐ have been explained in the specification.
 - b. ☐ have an abstract (or other concise explanation) in English enclosed or, if readily available, a translation into English of the document is enclosed.
5. Form PTO-1449 is enclosed in duplicate.



Gavin T. Bogle

Limited Recognition under 37 CFR §10.9(b)

American Home Products Corporation
Patent Law Department
Five Giralda Farms
Madison, NJ 07940-0874
Tel. No. (617) 665-8079

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	Not yet assigned	
			Filing Date		
			First Named Inventor	YOUNG	
			Group Art Unit	Not yet assigned	
Examiner Name	Not yet assigned				
Attorney Docket Number	AHP 98133 P1				
Sheet	1	of	1		

16971 U.S. PTO
10/05/84
01/17/02

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number (If known)	Kind Code (If Known)			
	1.	5,856,155		Li	01-05-1989	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (If Known)				
	2.	PCT	WO 97/31112			08-28-1997		<input type="checkbox"/>
	3	PCT	WO 95/34646			12-21-1995		<input type="checkbox"/>

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.		T
	4.	K. YOUNG <i>et al.</i> , "Identification of a Calcium Channel Modulator Using a High Throughput Yeast Two-Hybrid Screen," <u>Nature Biotechnology</u> , 16: 946-950 (1998).		<input type="checkbox"/>
	5.	B. OZENBERGER, <i>et al.</i> , "Functional Interaction of Ligands and Receptors of the Hematopoietic Superfamily in Yeast," <u>Molecular Endocrinology</u> , 9(10): 1321-1329 (1995).		<input type="checkbox"/>
	6.	R. SCANNEVIN, <i>et al.</i> , "Cytoplasmic Domains of Voltage-Sensitive K+ Channels Involved in Mediating Protein-Protein Interactions," <u>Biochemical and Biophysical Research Communication</u> , 232(RC976333): 585-589 (1997).		<input type="checkbox"/>
	7.	J. XU, <i>et al.</i> , "Auxiliary Subunits of Shaker-Type Potassium Channels," <u>TCM</u> , 8(5): 229-234 (1998).		<input type="checkbox"/>
	8.	S. HEINEMAN, <i>et al.</i> , "The Inactivation Behavior of Voltage-Gated K-Channels may be Determined by Association of α - and β -subunits," <u>J. Physiology</u> , 88: 173-180 (1994).		<input type="checkbox"/>
	9.	E. ISACOFF, <i>et al.</i> , "Putative Receptor for the Cytoplasmic Inactivation Gate in the Shaker K+ Channel," <u>Nature</u> , 353(5): 86-90 (1991).		<input type="checkbox"/>
	10.	R. MacKINNON, <i>et al.</i> , "Functional Stoichiometry of Shaker Potassium Channel Inactivation," <u>Science</u> , 262(29): 757-759 (1993).		<input type="checkbox"/>
	11.	W. ZAGOTTA, <i>et al.</i> , "Restoration of Inactivation in Mutants of Shaker Potassium Channels by a Peptide Derived from ShB," <u>Science</u> , 250: 568-571 (1990).		<input type="checkbox"/>
	12.	T. HOSHI, <i>et al.</i> , "Biophysical and Molecular Mechanisms of Shaker Potassium Channel Inactivation," <u>Science</u> , 250: 533-538 (1990).		<input type="checkbox"/>

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	Not yet assigned	
			Filing Date		
			First Named Inventor	YOUNG	
			Group Art Unit	Not yet assigned	
Examiner Name	Not yet assigned				
Sheet	1	of	1	Attorney Docket Number	AHP 98133 P1

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number (If known)	Kind Code (If Known)			
	1.	5,856,155		Li	01-05-1989	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Office	Number	Kind Code (If Known)				
	2.	PCT	WO 97/31112			08-28-1997		<input type="checkbox"/>
	3.	PCT	WO 95/34646			12-21-1995		<input type="checkbox"/>

OTHER PRIOR ART — NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	4.	K. YOUNG <i>et al.</i> , "Identification of a Calcium Channel Modulator Using a High Throughput Yeast Two-Hybrid Screen," <u>Nature Biotechnology</u> , 16: 946-950 (1998).	<input type="checkbox"/>
	5.	B. OZENBERGER, <i>et al.</i> , "Functional Interaction of Ligands and Receptors of the Hematopoietic Superfamily in Yeast," <u>Molecular Endocrinology</u> , 9(10): 1321-1329 (1995).	<input type="checkbox"/>
	6.	R. SCANNEVIN, <i>et al.</i> , "Cytoplasmic Domains of Voltage-Sensitive K ⁺ Channels Involved in Mediating Protein-Protein Interactions," <u>Biochemical and Biophysical Research Communication</u> , 232(RC976333): 585-589 (1997).	<input type="checkbox"/>
	7.	J. XU, <i>et al.</i> , "Auxiliary Subunits of Shaker-Type Potassium Channels," <u>TCM</u> , 8(5): 229-234 (1998).	<input type="checkbox"/>
	8.	S. HEINEMAN, <i>et al.</i> , "The Inactivation Behavior of Voltage-Gated K-Channels may be Determined by Association of α - and β -subunits," <u>J. Physiology</u> , 88: 173-180 (1994).	<input type="checkbox"/>
	9.	E. ISACOFF, <i>et al.</i> , "Putative Receptor for the Cytoplasmic Inactivation Gate in the Shaker K ⁺ Channel," <u>Nature</u> , 353(5): 86-90 (1991).	<input type="checkbox"/>
	10.	R. MacKINNON, <i>et al.</i> , "Functional Stoichiometry of Shaker Potassium Channel Inactivation," <u>Science</u> , 262(29): 757-759 (1993).	<input type="checkbox"/>
	11.	W. ZAGOTTA, <i>et al.</i> , "Restoration of Inactivation in Mutants of Shaker Potassium Channels by a Peptide Derived from ShB," <u>Science</u> , 250: 568-571 (1990).	<input type="checkbox"/>
	12.	T. HOSHI, <i>et al.</i> , "Biophysical and Molecular Mechanisms of Shaker Potassium Channel Inactivation," <u>Science</u> , 250: 533-538 (1990).	<input type="checkbox"/>

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.